DETAILED ACTION

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes

and/or additions be unacceptable to applicant, an amendment may be filed as provided

by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be

submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview

with applicant's representative Howard L. Speight (Reg. No. 37,733) on 8 October 2008.

The application has been amended as follows:

Amendment to the drawings:

The page containing Fig. 4 has been replaced with the attached replacement page.

Amendment to the specification:

The title has been amended to read as follows: Activation of native operations for

distinct-user defined types

Paragraph [0025] has been amended as follows:

[0025]   In one example system, UDT definitions, including enabled underlying operations
described by functions and operators, are stored in a data dictionary **(block 435)**, allowing the
system to add, retrieve, or modify UDT definitions.

Amendment to the claims:

Claims 6, 14, 21 have been canceled.

Claims 1, 3, 5, 9, 11, 13, 16, 18, 20 have been amended as follows:

1. (**currently amended**) A method of controlling operations ~~that may be~~ performed on a user-

defined type (UDT) in a database system, where the UDT is derived from an underlying type

having a set of underlying operations, the method including:

   creating the UDT **from the underlying type in the database system**; ~~and~~

   selectively activating one or more underlying operations for the UDT**; and**

   recording, in a data dictionary, the activated underlying operations for the UDT.

3. (**currently amended**) The method of claim 1, where creating the UDT includes:

   accepting a CREATE TYPE query including a system operators clause including an

      operator list including ~~zero~~ **one** or more operator elements, where each operator

      element corresponds to an underlying operation;

   and where activating the underlying operations includes:

      for each operator element listed in the operator list:

      activating the corresponding underlying operation for the UDT.

5. **(currently amended)** The method of claim 1, where activating the underlying operations

includes:

    accepting an ALTER TYPE query including a system operators clause including an

        operator list including ~~zero~~ **one** or more operator elements, where each operator

        element corresponds to an underlying operation; and

    for each operator element listed in the operator list:

        activating the corresponding underlying operation for the UDT.

9. **(currently amended)** A computer program **in executable form**, stored on a **computer-**

readable tangible storage medium, for use in controlling operations ~~that may be~~ performed on a

user-defined type (UDT) in a database system, where the UDT is derived from an underlying

type having a set of underlying operations, the computer program including executable

instructions that cause a computer to:

    create the UDT **from the underlying type in the database system**; ~~and~~

    selectively activate one or more underlying operations for the UDT**; and**

    record, in a data dictionary, the activated underlying operations for the UDT.

11. **(currently amended)** The computer program of claim 9, where the executable instructions

to create the UDT include executable instruction that cause the computer to:

    accept a CREATE TYPE query including a system operators clause including an operator

        list including ~~zero~~ **one** or more operator elements, where each operator element

        corresponds to an underlying operation;

and where the executable instructions to activate the underlying operations include

executable instruction that cause the computer to:

for each operator element listed in the operator list:

activate the corresponding underlying operation for the UDT.

13. **(currently amended)** The computer program of claim 9, where the executable instructions

to activate the ~~zero~~ **one** or more operations include executable instructions that cause the

computer to:

accept an ALTER TYPE query including a system operators clause including an operator

list including ~~zero~~ **one** or more operator elements, where each operator element

corresponds to an underlying operation; and

for each operator element listed in the operator list:

activate the corresponding underlying operation for the UDT.

16. **(currently amended)** A database system including:

a massively parallel processing system including:

one or more nodes;

a plurality of CPUs, each of the one or more nodes providing access to one or more

CPUs;

a plurality of data storage facilities each of the one or more CPUs providing access to one

or more data storage facilities;

a process for execution on the massively parallel processing system for controlling

operations ~~that may be~~ performed on a user-defined type (UDT) in the database

system, where the UDT is derived from an underlying type having a set of

underlying operations, the process including:

creating the UDT **from the underlying type in the database system**; ~~and~~

selectively activating one or more underlying operations for the UDT**; and**

recording, in a data dictionary, the activated underlying operations for the UDT.

18. **(currently amended)** The database system of claim 16, where creating the UDT includes:

accepting a CREATE TYPE query including a system operators clause including an

operator list including ~~zero~~ **one** or more operator elements, where each operator

element corresponds to an underlying operation;

and where activating the underlying operations includes:

for each operator element listed in the operator list:

activating the corresponding underlying operation for the UDT.

20. **(currently amended)** The database system of claim 16, where activating the underlying

operations includes:

accepting an ALTER TYPE query including a system operators clause including an

operator list including ~~zero~~ **one** or more operator elements, where each operator

element corresponds to an underlying operation; and

for each operator element listed in the operator list:

activating the corresponding underlying operation for the UDT.

Conclusion

The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure.

Sezgin et al (US 2005/0177581) teach supporting inheritance for user defined

types.

Marek et al (US 2004/0267766) teach defining user defined data types and user-

defined methods.

Cunningham et al (US 7,379,927) teach type path indexing.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to UYEN T. LE whose telephone number is (571)272-

4021. The examiner can normally be reached on M-F 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Don Wong can be reached on 571-272-1834. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

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system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Uyen T. Le/
Primary Examiner, Art Unit 2163
10 October 2008